

Water Operations and Conveyance Bundles Strengths and Weaknesses

Bundles	Strengths	Weaknesses
Foundation Water Operations and Conveyance Bundles		
1. Real-time operation of CVP/SWP	<ul style="list-style-type: none"> • Inexpensive • Highly reversible • Low impacts on other native species and human environment 	<ul style="list-style-type: none"> • May not effectively address entrainment issues unless effective monitoring techniques are in place • Low durability against seismic events and sea level rise • Limits where restoration may be implemented to maintain channels for conveyance and water quality • Limits using salinity as a tool to manage habitat and non-native species • Maintains low residence time thus reducing food production • May not achieve expectations for water supply
5. Isolated facility	<ul style="list-style-type: none"> • Maximum likely reduction in entrainment losses • Highly durable to seismic events and sea level rise • Highly adaptable to manage the Delta system for fish conservation • Maximizes ability to restore habitats throughout the Delta because constraints associated with existing conveyance and water quality functions are removed • Allows use of fluctuating salinity as a method to control non-native species throughout a large portion of the Delta • Maximizes opportunities to increase residence and food production • Likely to meet expectations for water supply 	<ul style="list-style-type: none"> • Expensive • Low reversibility • Large impacts on other native species and human resources associated with facilities construction • Uncertainties of benefits associated with fluctuating salinities • Peripheral aqueduct would create barrier to movement for some terrestrial species

Bundles	Strengths	Weaknesses
7. Dual conveyance facility	<ul style="list-style-type: none"> • Reduction in entrainment effects provided by operational flexibility • Provides for opportunities to provide for fluctuating salinities in the Delta when in-Delta conveyance is not operated, limited opportunities when in-Delta conveyance is operated • Could increase residence time during some periods and thus improve food production • Depending on configuration, may provide opportunities for habitat restoration in west and central Delta • Dual conveyance provides flexibility in how operations are conducted to maximize ecosystem benefits • Likely to meet expectations for water supply 	<ul style="list-style-type: none"> • Potential adverse impact on sturgeon associated with dredging • Low durability against seismic events and sea level rise • Expensive • Low reversibility • Large impacts on other native species and human resources associated with facilities construction
Other Water Operations and Conveyance Bundles		
2. Reduced demand/diversions	<ul style="list-style-type: none"> • Inexpensive • Low impacts on other native species and human resources • Could increase residence time during some periods and thus improve food production • Depending on the degree of reduction in demand/diversions, could be opportunities to restore habitat in west and central Delta 	<ul style="list-style-type: none"> • Low durability against seismic events and sea level rise • May not effectively address entrainment issues unless effective monitoring techniques are in place • Limits using salinity as a tool to manage habitat and non-native species • May not achieve expectations for water supply
3. Opportunistic exports	<ul style="list-style-type: none"> • Highly durable to seismic events and sea level rise • Reduction in effects of entrainment associated with limiting export periods 	<ul style="list-style-type: none"> • Low reversibility • Low durability against seismic events and sea level rise • Large impacts on other native species and human resources • Large impacts on other native species and human resources associated with facilities construction • May not achieve expectations for water supply during some periods

Bundles	Strengths	Weaknesses
4. SDA facility	<ul style="list-style-type: none"> • Improved ecosystem water quality in south Delta • Provides opportunities to restore habitat in northern tier of the Delta • Allows use of fluctuating salinity as a method to control non-native species in the northern tier of the Delta • Likely to meet expectations for water supply 	<ul style="list-style-type: none"> • Low effect on reducing entrainment • Expensive • Low reversibility • Questionable durability to seismic events and sea level rise • Large impacts on other native species and human resources associated with facilities construction • Potential for adverse effects on salmonids associated with creating false migration cues
6. Bifurcated SDA facility	<ul style="list-style-type: none"> • Reduces entrainment losses by reducing exports from pumps • Highly durable to seismic events and sea level rise • Adaptable to manage the Delta system for fish conservation • Provides ability to restore habitats throughout northern tier of the Delta and some possibility for restoring habitat in south Delta • Allows use of fluctuating salinity as a method to control non-native species throughout a large portion of the Delta • Improves residence time and food production throughout the Delta • Likely to meet expectations for water supply 	<ul style="list-style-type: none"> • Expensive • Low reversibility • Questionable durability to seismic events and sea level rise • Large impacts on other native species and human resources associated with facilities construction • Potential for adverse effects on salmonids and other species associated with creating false migration cues
8. San Joaquin River Corridor Isolated	<ul style="list-style-type: none"> • Improves habitat and ecosystem conditions for San Joaquin River species • Reduces entrainment of San Joaquin River fish • Provides opportunity for habitat restoration in the west and central Delta • Low impacts on other native species and human resources • Moderately expensive • Likely to meet expectations for water supply 	<ul style="list-style-type: none"> • Limited beneficial or adverse impact to covered fish species outside of San Joaquin River • Low durability against seismic events and sea level rise • Low adaptability for managing the Delta system for fish conservation